## Koch, Kristine

From: John Toll < JohnT@windwardenv.com>
Sent: Wednesday, January 13, 2016 8:05 PM

To: Koch, Kristine

Cc: Bob Wyatt; Patty Dost; jmott@anchorgea.com

**Subject:** FW: Portland Harbor Bioaccumulation Modeling Report

Hi Kristine,

I'm writing in response to your request for spreadsheets used to calculate the SWACs in the bioaccumulation modeling report. You indicated that these spreadsheets should show the calculations, including the specific empirical data used, so that CDM can identify how the data were grouped and confirm the results.

As stated in the report (pages 11 and 12) the SWACs were calculated in ArcGIS using the natural neighbors interpolation algorithm that is built into ArcGIS software. As such, the information that CDM will need is more than just spreadsheets. You will need the following:

- sediment chemistry data with coordinates of the sampling locations (Excel files)
- GIS shape files for fish home ranges (these shape files provide the SWAC averaging areas and the fish sampling coordinates)
- information about the ArcGIS natural neighbors algorithm that was used to calculate the SWACs
- metadata from the ArcGIS files

I've spoken to our GIS analyst who did this work. It will take us a few days to assemble the information once we're authorized to proceed. Let us know please how we should proceed.

John

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**From:** Jen Woronets [mailto:jworonets@anchorgea.com]

Sent: Monday, January 04, 2016 11:04 AM

To: (beverly.pearman@portofportland.com); (peggy.miner@portlandoregon.gov); Ankur Tohan (Ankur.Tohan@klgates.com); Annie Von Burg (Annie.VonBurg@portlandoregon.gov); Betz, Jan; Bill Joyce (wjoyce@jzplaw.com); Bob Wyatt; Brandi C. Sablatura (Brandi.C.Sablatura@p66.com); Brigitte Howe (brigitte@geomega.com); C Reive; Dave Livesay; David Livermore (dlivermore@integral-corp.com); Debbie Deetz Silva (Debbie.Silva@EvrazNA.com); Decker, Megan; Drew Gilpin (drew.gilpin@evrazincna.com); Erin Carroll Hughes; Fred G. Wolf (Frederick.wolf@total.com); G Koschal; Gardner, Sara; Gerald (Jerry) George (geraldgeorge@dwt.com); Ilene Gaekwad (igaekwad@davisrothwell.com); J Snyder; James Peale; Jay Griffith; Jen Woronets; Jessica Hamilton (Jessica.Hamilton@portofportland.com); Jim Anderson (janderson@gsiws.com); Jim Benedict (jbenedict@cablehuston.com); Jim Kincaid (jkincaid@cablehuston.com); Jim McKenna (jim.mckenna@verdantllc.com); John Ashworth (jashworth@kelrun.com); Julia Weisenbach (Julia.Weisenbach@portofportland.com); junderwood@qmginc.com; Karen Moynahan (karen.moynahan@portlandoregon.gov); Karen Traeger; Kelly Madalinski (kelly.madalinski@portofportland.com); Kerry Gallagher (kgallagher@maulfoster.com); Kim Cox (kim.cox@portlandoregon.gov); Kim Stafford; Klinger, Nanci; Linda Baker (lbaker@integral-corp.com); Loren Dunn (ldunn@riddellwilliams.com); M Chandler; M Miller; Madi Novak; Marjorie Brown (Marjorie.Brown@portlandoregon.gov);

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Cc: Jen Woronets; Jim McKenna (jim.mckenna@verdantllc.com); John Toll; Gene Revelas; Carl Stivers; Amanda

Shellenberger; Laura Jones

Subject: FW: Portland Harbor Bioaccumulation Modeling Report

Exec,

Please see below from EPA.

Thank you, Jen Woronets © Anchor QEA, LLC jworonets@anchorqea.com 421 SW Sixth Avenue, Suite 750 Portland, OR 97204 503-972-5014

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From: Koch, Kristine [mailto:Koch.Kristine@epa.gov]

Sent: Monday, January 04, 2016 11:03 AM

To: Bob Wyatt <rjw@nwnatural.com>; Jim McKenna (jim.mckenna@verdantllc.com) <jim.mckenna@verdantllc.com>

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Subject: Portland Harbor Bioaccumulation Modeling Report

Bob and Jim - Please provide the spreadsheets used to calculate the SWACs in the bioaccumulation modeling report. These spreadsheets should show the calculations, including the specific empirical data used, so that CDM can identify how the data were grouped and confirm the results. Having the LWG calculations in hand will facilitate this review.

Let me know if you have any questions.

Thanks,

Kristine Koch Remedial Project Manager USEPA, Office of Environmental Cleanup

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